

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1-6. (Canceled)

7. (Currently Amended) A processing system comprising:

a central processor;

a BIOS memory device storing a boot program;

a BIOS protection device;

a plurality of memory address and data paths to provide communication between at least the processor, BIOS memory device and BIOS protection device;

said BIOS protection device configured to verify the boot program and control the memory address and data paths and prevent execution of the boot program until said verification,

~~The system as claimed in claim 1~~ wherein the BIOS protection device also contains an internal memory device and is configured to, while authenticating the BIOS memory device contents, copy at least part of the BIOS memory device contents to the internal memory device and control the address and data path(s) to bypass the BIOS memory device and communicate with the internal memory device when the central processor attempts to access the copied part of the BIOS memory device contents.

8-17. (Canceled)

18. (Currently Amended) A method of authenticating a boot program held in a BIOS memory device of a processing system comprising a central processor, the BIOS memory device and a BIOS protection device interconnected by address and data paths, the method comprising:

1) at start-up, the BIOS protection device temporarily prevents execution of the boot program by the central processor;

2) the BIOS protection device takes control of the address and data paths;

3) the BIOS protection device interrogates the contents of the BIOS memory device to establish if the contents are authenticated;

4) if the contents of the BIOS memory device are not authentic, the BIOS protection device prevents execution of the boot program and prevents further operation of the central processor; and

5) if the contents of the BIOS memory device are authentic, the BIOS protection device relinquishes control of the address and data paths and allows the central processor to execute the boot program in the BIOS memory device

~~The method as claimed in claim 13~~ wherein the BIOS protection device also contains an internal memory device and while authenticating the BIOS memory device contents, the BIOS protection device copies at least part of the BIOS memory device contents to the internal memory device and subsequently controls the address and data path(s) to bypass the BIOS memory device and communicate with the internal memory device instead when the central processor attempts to access the copied part of the BIOS memory device contents.

19-28. (Canceled)

29. (Currently Amended) A BIOS protection device for connection to a processing system between a central processor and a BIOS memory device containing a boot program, the BIOS protection device including address and data path interface connections, and an authentication processor whereby, when power is applied to the BIOS protection device, the BIOS protection device takes control of address and data path(s) to which it is connected and the authentication processor interrogates the BIOS memory device connected to the address and data path(s) to determine if the boot program contained in the BIOS memory device is authentic, and only if the boot program is determined to be authentic does the BIOS protection device release control of the address and data path(s) to permit the central processor to execute the boot program

~~The device a claimed in claim 24~~ wherein the BIOS protection device also contains an internal memory device and while authenticating the BIOS memory device contents, the BIOS protection device copies at least part of the BIOS memory device contents to the internal memory device and subsequently controls the address and data path(s) to bypass the BIOS memory device and communicate with the internal memory device instead when the central processor attempts to access the copied part of the BIOS memory device contents.

30-35. (Canceled)